

Torque Converter for Forklift

Torque Converters for Forklift - A torque converter is actually a fluid coupling which is used to transfer rotating power from a prime mover, that is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is same as a basic fluid coupling to take the place of a mechanical clutch. This allows the load to be separated from the main power source. A torque converter could offer the equivalent of a reduction gear by being able to multiply torque when there is a substantial difference between input and output rotational speed.

The fluid coupling model is the most common kind of torque converter utilized in automobile transmissions. During the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are different mechanical designs for constantly variable transmissions which could multiply torque. For example, the Variomatic is a version that has a belt drive and expanding pulleys.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an part referred to as a stator. This alters the drive's characteristics during occasions of high slippage and generates an increase in torque output.

There are a minimum of three rotating elements inside a torque converter: the turbine, which drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller so that it could alter oil flow returning from the turbine to the impeller. Usually, the design of the torque converter dictates that the stator be prevented from rotating under whichever situation and this is where the word stator begins from. In truth, the stator is mounted on an overrunning clutch. This particular design stops the stator from counter rotating with respect to the prime mover while still permitting forward rotation.

In the three element design there have been adjustments that have been integrated at times. Where there is higher than normal torque manipulation is needed, changes to the modifications have proven to be worthy. Most commonly, these modifications have taken the form of multiple turbines and stators. Every set has been designed to generate differing amounts of torque multiplication. Some examples include the Dynaflo which uses a five element converter so as to produce the wide range of torque multiplication required to propel a heavy vehicle.

Although it is not strictly a component of classic torque converter design, various automotive converters include a lock-up clutch so as to lessen heat and to enhance cruising power transmission efficiency. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses related with fluid drive.